

In the Claims

The following listing of the claims replaces all previous listings.

1. (Amended) Excavator drum for the production of vertical trenches, comprising:

a cylindrical shell mounted so as to rotate about its axis of revolution and having end faces; and

[•] a plurality of excavating tools mounted on the external face of the said shell, said tools comprising:

[•] a plurality of first rollers mounted so as to rotate about axes making an angle of less than 45 degrees with the rotation axis of the drum, the external wall of which is a surface of revolution that is symmetrical with respect to the mid-plane of the roller orthogonal to its rotation axis, the said mid-plane substantially merging with the mid-plane of the shell; the said external wall being equipped with cutting elements and defining a first roller cutting area; and the length of which is less than the length of the shell; and

a plurality of pairs of second rollers, each roller of the same pair being mounted so as to rotate about a cantilever axle whose support is mounted on the central area of the shell, the axles make an angle [$<$] less than 30 degrees with the axis of the shell, each roller having a width at least equal to the distance that separates one end of a first roller from the corresponding end of the shell, the casing of the external end of the second rollers being at least in the plane containing one end of the shell, the pairs of second rollers being angularly offset in relation to one another and with respect to the first rollers, the external wall of each second roller being fitted with cutting elements, said second roller external wall defining a drilling area whereby the drilling area for the pairs of second rollers partially overlaps the drilling area for the first rollers.

2. (Previously Presented) Excavator drum according to claim 1, wherein the axis of the first rollers makes an angle of between 1 and 10 degrees with the axis of the shell.

3. (Previously Presented) Excavator drum according to claim 1, wherein said second rollers make an angle of between 1 and 10 degrees with the axis of the shell.

4. (Previously Presented) Excavator drum according to claim 1, wherein said second rollers are cylindrical and their rotation axes are substantially parallel to the rotation axis of the shell.
5. (Previously Presented) Excavator drum according to claim 1, wherein the centre of the axis of the first rollers is substantially in the mid-plane of the said shell, orthogonal to its rotation axis.
6. (Previously Presented) Excavator drum according to claim 1, wherein the centre of the axis of said first rollers is alternately arranged on either side of the mid-plane of the shell, orthogonal to its rotation axis.
7. (Previously Presented) Excavator drum according to claim 1, wherein the external sides of the second rollers are fitted, at least in their peripheral area, with cutting elements.
8. (Previously Presented) Excavator drum according to claim 1, wherein the rotation axis of each first roller is mounted, at each of its ends, in a bearing integral with the external wall of the shell.
9. (Previously Presented) Excavator drum according to claim 1, wherein said first rollers are cylindrical.
10. (Previously Presented) Excavator drum according to claim 1, wherein said first rollers have a barrel shape.
11. (Previously Presented) Excavator drum according to claim 1, wherein said cutting elements are studs.
12. (Previously Presented) Excavator drum according to claim 1, wherein the width of the said first rollers is at least equal to half the width of the shell.